

# 37th Annual Meeting, APS Division of Plasma Physics

## 6-10 November 1995, Louisville, KY

### Abstract Submittal Form

**Deadline: Friday, 7 July 1995**

Subject Classification Category \_\_\_\_\_

[ ] Theory [ ] Experiment

(Refer to the DPP Subject Category list on page M12.)

**Planar hydrodynamics experiments in indirect-drive,\*** B.A. Remington, M.M. Marinak, S.V. Weber, K.S. Budil, O.L. Landen, T. Shepard, T. Peyser, D. Kalantar, R.J. Wallace, *LLNL, Livermore, CA 94550*, S. Rothman, *AWE, Aldermaston, Reading, UK*. A number of effects of hydrodynamic instabilities in inertial confinement fusion capsule performance can be investigated in planar geometry. At the Nova laser we are examining the effects on Rayleigh-Taylor growth using indirect-drive of 2D versus 3D single-mode perturbation shape,<sup>1</sup> drive pulse shape,<sup>2</sup> and perturbation location at the ablation front versus at an embedded interface.<sup>3</sup> We are also using the Helen laser at AWE to examine foil hydrodynamics during the shock transit phase. Finally, we have initiated an experiment on Nova to investigate specific issues regarding hydrodynamic instabilities in astrophysics.<sup>4</sup> An overview will be given describing recent progress in each of these areas. \*Work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under contract number W-7405-ENG-48.

<sup>1</sup>M.M. Marinak *et al.*, these proceedings; UCRL-JC-120191 (1995).  
<sup>2</sup>T.J. Murphy *et al.*, these proceedings.  
<sup>3</sup>K.S. Budil *et al.*, these proceedings.  
<sup>4</sup>J. Kane *et al.*, M. Wood-Vasey *et al.*, these proceedings.

- [ ] Prefer Poster Session  
 [X] Prefer Oral Session  
 [ ] Place in the following grouping:  
 (Specify the order)

- [ ] Special Audiovisual Requests  
 (e.g., VCR/monitor, movie projector)

- [ ] Other Special Requests  
 (e.g., Supplemental session)

Submitted by:

\_\_\_\_\_  
 (Signature of APS Member)

Bruce A. Remington

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 (Member Name Typewritten)

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A faxed copy is not acceptable. This form, or a computer generated form, plus **TWO COPIES**, must be received by **Friday, 7 July, 1995** at the following address:

**Meetings Department • DPP 37th Annual Meeting**  
**The American Physical Society**  
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